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REPORT NO. 12

JAN 25 '74

PROCUREMENT SECTION  
CURRENT SERIAL RECORDS

## Cotton Fiber and Processing Test Results

CROP of

1970



Consumer and Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38117 January 22, 1971

This is the twelfth, and last, report on fiber and processing test results on the 1970 cotton crop. These reports were issued twice each month during the harvesting season, and will be summarized in a comprehensive report to be issued in early spring. This 1970 group of reports gives data on the same subject as AIB 344, "Summary of Cotton Fiber and Processing Test Results, Crop of 1969, May 1970." These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1970

### Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that average value for fiber and processing test results for all medium staple samples tested through January 15, 1970 show no significant changes from last year except for picker and card waste. Average picker and card waste is lower in the 1970 crop compared to the 1969 crop.

Southwestern short staple samples are finer and stronger than a year ago. Waste content is lower. Yarns spun from these samples are stronger with fewer imperfections. Average spinning potential yarn number is higher than last season.

No additional Southeastern medium staple samples were received during this report period.

South Central medium staple samples are weaker than a year ago. Yarns spun from these samples are weaker with lower appearance grades and more imperfections. Average spinning potential yarn number is unchanged.

Southwestern medium staple samples are longer than last season. Fiber strength at 1/8-inch gage is stronger. Picker and card waste is lower. Yarns spun from these samples show fewer imperfections. Average spinning potential yarn number is higher.

Western medium staple samples are finer and weaker at 1/8-inch gage than a year ago. Picker and card waste is lower. Yarns spun from these samples show more imperfections. Average spinning potential yarn number is higher.

No additional long staple samples were received during this report period.

Western extra long staple, upland, samples are shorter, finer and stronger than a year ago. Trash content is lower. Yarns spun from these samples are weaker with lower appearance grades and more imperfections.

Western extra long staple, American Pima, samples are longer, finer and stronger than last season. Yarns spun from these samples are stronger with lower appearance grades and more imperfections.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through January 15, 1971

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness		Fiber strength 1/8" gage		S A nonlint waste		P & C waste		Yarn quality	
		2.5% span	50/2.5 unif.	Zero gage	gage	g/tex	Mpsi	Pct.	Pct.	Lbs.	Index	22s Carded	Yarn No.
Short Staple:													
Southwest	76	0.93	45	4.1	83	20.1	3.8	7.6	87	111	35	39	
	63	0.94	46	4.3	86	21.1	3.2	6.0	93	114	29	43	
Medium Staple:													
Southeast	91	1.09	46	4.6	83	22.9	3.3	7.1	104	101	22	60	
	83	1.07	45	4.4	83	22.6	3.6	6.7	102	101	18	60	
South Central	195	1.10	45	4.6	84	22.8	3.0	6.5	107	111	19	61	
	171	1.09	45	4.5	82	22.3	3.2	6.2	102	106	22	61	
Southwest	76	1.04	45	4.2	86	22.3	3.4	7.0	104	110	31	56	
	66	1.06	46	4.2	87	22.9	3.2	6.3	106	113	29	62	
West	78	1.10	45	4.4	94	25.3	3.0	6.3	119	111	22	66	
	70	1.10	45	4.2	93	24.8	2.7	5.7	118	113	25	70	
U.S. Average	440	1.09	45	4.5	86	23.2	3.1	6.7	108	109	22	61	
	390	1.08	45	4.4	85	22.9	3.2	6.2	106	107	21	63	
Significant dif- ference 2/		0.02	2	0.2	2	0.5	0.5	0.5	4(22s)				
									2(50s)	5	2	3	

1/  
2/

4(22s)

2(50s)

5

2

3

Based on a limited number of samples of modal quality  
Minimum differences considered to be significant for comparisons in this table. These guides are  
based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 15, 1971  
 1/ (Continued)

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness		Fiber strength 1/8" gage		S A nonlint waste		P & C waste		Yarn quality	
		2.5% span	50/2.5 unif.	Pct.	Inches	Rdg.	Mpsi	G/tex	Pct.	Pct.	Lbs. 22s	Index Carded	No. Yarn
<u>Long Staple:</u>													
Southeast													
1970	14	1.14	45	4.7	82	23.2	4.5	8.6	109	103	21	65	
South Central	6	1.16	42	4.6	85	23.8	4.5	9.2	102	93	26	62	
West													
1969	23	1.18	46	4.1	92	26.2	3.0	7.1	135	98	23	79	
1970	20	1.18	45	3.7	92	26.8	3.5	8.2	134	86	43	75	
Extra Long Staple:													
West													
1969	4	1.47	32	4.0	110	34.2	3.8	8.3	73	112	4		
1970	3	1.41	32	3.8	112	35.1	2.5	7.7	71	103	7		
West													
1969	21	1.46	30	3.9	97	32.1	3.7	7.8	67	115	2		
1970	18	1.48	31	3.6	100	33.9	3.5	8.0	70	110	4		
Significant dif- ference 2/													
1/	0.02	2	0.2	2	0.5	0.5	0.5	0.5	4(22s)				
2/	Based on a limited number of samples of modal quality Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.	5	2	5	2	5	2	3	2(50s)				

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification Sample Number		Fiber Test Results								Processing Test Results - Carded Yarns											
		Digital Fibrograph	Mike	S.A. Non- Lint 1/8"	Color Raw Stock	P & C Waste	Strength		Elongation		Appearance Index		Imperf'ns 8s or 22s or 74 tx 27 tx		8s or 22s or 74 tx 27 tx		8s or 22s or 74 tx 27 tx		Spin. Poten- tial		
No	Grade	Staple span	2.5% span	Unif	Zero Gage	1/8" Gage	Gtex	Mpsi	Rdg	Pct	Pct	No	No	Pct	Pct	Pct	Pct	No	No	No	
SOUTHWESTERN AREA																					
NORTHWEST TEXAS																					
ANSON	4 MID LT SP	32	0.94	45	4.4	86	20.9	6.4	3.0	2	4	6.2	30.0	87	6.7	5.8	130	120	46	30	
LAKEVIEW	2 SLM LT SP	42	0.97	47	4.1	96	23.1	5.9	3.9	4	4	6.8	37.6	113	6.7	5.8	120	120	51	30	
	3 MID LT SP	32	0.90	46	3.9	95	22.6	5.9	3.1	2	4	6.1	33.8	100	6.3	5.6	120	120	43	27	
LUBBOCK	3 SLM	41	1.01	45	4.1	89	20.7	6.2	3.1	2	3	5.7	34.3	105	6.7	6.0	120	120	47	29	
MORTON	3 MID SP	33	29	0.90	47	3.5	93	22.5	6.5	3.2	4	6	5.8	35.0	105	7.2	6.1	110	110	68	36
PADUCAH	3 MID LT SP	32	0.95	45	4.2	87	21.0	6.8	3.3	2	4	6.6	30.6	91	6.4	5.6	120	120	49	31	
ROSCOE	4 MID LT SP	32	0.92	46	4.2	85	19.5	6.0	3.1	2	4	6.0	31.0	93	6.7	5.8	120	110	41	25	
STAMFORD	4 MID LT SP	32	0.96	46	4.8	85	21.8	7.0	2.6	2	3	5.6	30.9	92	6.8	5.9	130	120	35	21	
WELLMAN	3 MID LT SP	32	0.94	44	3.5	76	19.6	8.0	3.0	2	4	5.5	31.2	92	7.7	6.7	110	110	74	44	
OKLAHOMA																					
FREDERICK	3 MID LT SP	32	0.92	45	4.8	82	20.9	6.9	2.9	2	4	6.0	28.5	85	6.3	5.6	120	120	41	26	
GOTEBO	3 SLM LT SP	42	30	0.91	45	4.6	85	20.6	6.6	3.4	3	4	5.1	31.6	93	6.8	5.8	120	110	42	26

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification				Fiber Test Results								Processing Test Results - Carded Yarns										
No	Grade	Name & Code	Sample Number	Digital Fibrograph		Fiber Strength		S.A. Non-Lint		Color Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imperfections		
				2.5% span	Stple	Unif.	Mike	Zero Gage	1/8" Gage	G/tex	Mpsi	Pct	Pct	No	Pct	Lbs	Pct	Pct	No	No		
SOUTH CENTRAL AREA																						
FOREMAN	4	34	1.09	44	4.1	88	24.7	6.4	3.0	2	5.8	113	39	6.1	4.8	100	70	27	25	65		
HELENA	4 LM	35	1.16	46	3.7	81	23.6	7.0	4.2	3	2	7.3	118	42	6.6	5.2	110	90	28	19	64	
HUGHES	4 LM	34	1.10	46	3.7	83	23.6	6.1	2.8	3	2	6.3	101	34	5.6	4.1	100	80	34	24	66	
PROCTOR	4 LM	34	1.09	45	3.9	82	23.2	6.4	3.7	3	2	7.0	107	38	5.9	4.8	100	80	42	26	58	
LOUISIANA MONROE	4 SLM	34	1.12	45	3.9	83	23.7	6.6	2.6	2	6.8	112	40	6.4	4.8	90	80	33	27	65		
SICILY ISLAND	4 LM	34	1.10	46	3.3	85	23.7	6.2	4.6	2	2	8.3	111	40	5.9	4.5	100	80	37	31	58	
MISSISSIPPI INDIANOLA	4 SLM	34	1.10	43	4.5	84	23.1	5.8	2.9	2	2	5.8	109	38	7.1	5.3	110	80	21	19	61	
WEST POINT	3 SLM LT SP	42	34	1.11	43	4.0	79	23.4	7.0	2.9	2	3	6.6	101	34	7.3	5.5	100	70	25	18	60
MISSOURI SIKESTON	3 SLM	41	34	1.06	46	3.8	83	22.8	7.0	2.8	2	3	5.8	107	38	6.3	4.8	100	80	29	21	63
SIKESTON	3 SLM LT SP	42	34	1.06	46	4.2	82	21.7	6.9	2.9	3	3	5.9	105	36	6.2	4.5	120	90	27	17	63

Table 3 -Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 ---(Continued)

Production Area, Classification & Sample Number				Fiber Test Results								Processing Test Results - Carded Yarns												
				Digital Fibrograph		Fiber Strength		S.A. Elong- at'n 1/8"		Color Raw Stock Waste		Strength		Elongation		Appearance Index		Imperfect's No.		Spin- Potential No.				
No	Grade	Staple	2.5% span	Mike	Zero 1/8"	Gage	Gage	Non- Lint	Gra	Yel	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	No	No	No	No				
SOUTHWESTERN NORTHWEST TEXAS																								
3	SLM	41	34	1.06	47	3.9	91	25.1	6.5	3.8	2	3	6.5	124	45	6.1	4.7	100	80	32	27	69		
RAYLAND								LOCKETT	4789A			100 PERCENT												
2	SLM	LT	SP	42	32	1.20	46	4.7	97	23.1	5.6	4.0	3	4	7.4	105	33	5.3	3.6	120	90	40	26	52
3	SLM	LT	SP	42	33	1.05	47	4.4	95	24.0	5.1	4.3	3	4	7.9	113	38	5.6	4.2	110	80	43	29	58
ROPESVILLE																								
3	SLM	41	34	1.08	44	2.8	85	24.8	7.4	3.0	3	3	6.7	113	41	6.4	5.0	60	60	87	65	68		
VERNON																								
3	SLM	LT	SP	42	32	0.99	46	4.6	96	24.6	5.4	3.3	3	4	7.4	105	31	5.2	3.3	100	80	38	29	50
WESTERN ARIZONA																								
YUMA								DUNN	56C			75 PERCENT												
4	SLM	41	34	1.14	43	3.9	89	25.3	6.1	3.0	2	2	6.0	116	41	5.9	4.5	100	70	36	28	63		
CALIFORNIA																								
CHOWCHILLA																								
3	SLM	41	36	1.10	45	3.9	101	26.0	5.1	2.6	2	3	5.7	130	49	5.4	4.3	120	100	20	15	79		
COALINGA																								
3	SLM	41	35	1.11	45	3.2	99	25.4	4.8	3.1	2	3	7.3	119	43	5.1	4.0	60	60	57	51	75		
FIREBAUGH																								
3	SLM	41	35	1.10	47	4.1	98	26.0	5.3	2.9	2	3	6.3	126	46	5.8	4.6	120	90	20	13	72		
HANFORD																								
3	SLM	41	35	1.06	43	3.3	99	24.8	4.6	2.3	3	3	6.1	117	42	5.2	4.0	90	70	30	18	68		
CALIFORNIA																								
SAN JOAQUIN																								
3	SLM	41	35	1.06	47	4.1	100	47	4.1	27.6	5.6	3.5	2	3	7.9	129	47	5.5	4.3	110	90	22	16	72

\* 100 percent selected for tests, less than 100 percent in the area.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 ---(Continued)

Production Area, Classification		Fiber Test Results								Processing Test Results - Carded Yarns											
		Digital Fibronograph		Fiber Strength		S.A.		Color		Strength		Elongation		Appearance Index		Imperfect's					
Sample Number	Grade	Staple	2.5% span	Mike	Zero	1/8" Gage	1/8" Gage	Raw Stock	P & C Waste	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s				
No	Name & Code	32s	In	Pct	Edge	Mpsi	G/tex	Pct	Pct	No	Pct	No	Pct	Pct	No	No	No				
WESTERN AREA---(Continued)																					
CALIFORNIA ---(Continued)																					
VISALIA	3 MID	36	1.14	46	4.3	100	27.2	4.6	2.0	1	3	4.8	132	49	5.7	4.6	120	90	15	12	76
WESTMORELAND	4 MID	34	1.07	43	4.3	88	24.7	5.7	2.3	1	3	6.2	104	33	5.4	3.7	120	90	16	12	55
WEST TEXAS	3 MID	36	1.14	44	3.3	94	25.0	5.8	3.5	1	2	7.3	127	47	5.9	4.5	60	60	65	49	78

Table 4--Cotton, American upland extra long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number		Fiber Test Results										Processing Test Results - Combed Yarns							
No	Grade	Array Length	Mike	Fiber Strength	Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock	P & C Comber Waste	Strength	Elongation	Appearance Index	Imperfect's							
No	Name & Code	Staple	CV	Zero Gage	1/8" Gage	Yel	Gra	12 tx	50s or 7 tx	80s or 7 tx	50s or 12 tx	80s or 12 tx	50s or 12 tx	80s or 12 tx	No	No	No	No	
		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	Pct	Pct	Pct	Pct	No	No	No	No	
WESTERN AREA																			
ARIZONA AGUILA		31	42	1.41	34	3.8	113	DEL CERRO 34.1	4.9	2.2	0	3	100 PERCENT 7.8	17.0	72	39	5.2	4.7	
3	MID															100	100	6	4

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number		Fiber Test Results										Processing Test Results - Combed Yarns									
		Array Length		Fiber Strength		Elong- at'n 1/8"		S.A. Non- Lint		Color Raw Stock		Comber Waste		Elongation		Appearance Index		Imperfect's			
No	Grade	Stple	CV	Mike	Zero Gage	1/8"	Gage	Gra	Yel	P & C Waste	12 tx	50s or 80s or 12 tx	7 tx	50s or 80s or 12 tx	7 tx	50s or 80s or 12 tx	7 tx	No	No	No	No
32s	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No
<b>WESTERN AREA</b>																					
<b>ARIZONA</b>																					
<b>CASA GRANDE</b>																					
3	44	1.42	36	3.3	102	PIMA S-4 35.1	5.9	4.5	3	5	10.1	16.9	72	39	6.2	5.0	100	100	5	5	5
<b>PEORIA</b>																					
3	44	1.53	32	3.7	104	PIMA S-4 36.9	6.3	3.7	4	5	9.5	16.0	73	39	6.0	5.2	100	100	4	4	4

